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### **DRAFT**

GSO5/DS..../2011

لم و.س MOLASSES

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#### **MOLASSES**

#### 1- SCOPE AND FIELD OF APPLICATION

This standard is concerned in refinery Molasses which is used in food manufacturing.

#### 2- COMPLEMENTARY REFERENCES

- 2.1 GSO 9 "Labelling of prepackaged food".
- 2.2 GSO 21 "Hygienic Regulation for Food Plants and Their Personnel".
- 2.3 GSO 168 "Conditions of storage facilities for dry and canned foodstuffs".
- 2.4 GSO 839 "Food packages part1 : general requirements".
- 2.5 GSO 122 "Methods of Test for Honey".
- 2.6 GSO 147 "honey ".
- 2.7 GSO 194 "Methods of Test for Wheat Flour".
- 2.8 GSO 148 " Sugar "
- 29 GSO134 "Methods of Test for Sugar".
- 2.10 GSO 20 "Methods of Test for the Determination of Contaminating Metallic Elements in Foodstuffs".
- 2.11 GSO 242 "Fruit and vegetable products-determination of ethanol".
- 2.12 GSO 842 "Microbiology general guidance for enumeration of yeast and moulds colony count technique at 25c.".

#### 3- **DEFINITIONS**

#### 3.1 Molasses

Is a by-product of operations for the manufacture the final crystallization of the sugar refined cane or beet.

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# 4- REQUIREMENTS

The following requirements shall met in Molasses.

- 4.1 All materials used shall comply with the relevant Gulf standards for materials.
- 4.2 It shall be free of foreign matters.
- 4.3 It shall be free from ethyl alcohol (ethanol).
- 4.4 It shall be free from insects, their fragments and Rodents excreta.
- 4.5 It shall be dark brown in colour.
- 4.6 The taste and odor shall be natural specific for molasses.
- 4.7 It shall be thick and viscous.
- 4.8 Production shall be according to good manufacturing practices.
- 4.9 It shall be soluble in cold or hot water.
- 4.10 Moisture content shall not exceed 25%.
- 4.11 Ash content shall not exceed 16%.
- 4.12 Invert sugar content shall not be less than 48% of total sugars.
- 4.13 Total solids shall not be less than 75%.
- 4.14 Contaminating metallic element content shall not exceed the following:

Arsenic: 1.0 PPM

Copper: 1.0 PPM

Lead : 0.5 PPM

4.15 Number of yeasts and moulds shall not exceed 10 cells/10 g.

#### 5- SAMPLING

5.1 Samples shall be taken according to Gulf standard mentioned in item (2.6).

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#### 6- METHODS OF TEST

Test shall be carried out on the representative sample taken according to item (5.1) to determine its compliance with all testing methods.

#### 6.1 **Determination of Moisture**

Shall be carried out according to Gulf standard mentioned in item (2.9).

# 6.2 **Determination of Ash**

Shall be carried out according to Gulf standard mentioned in item (2.9).

# 6.3 **Determination of Invert Sugar**

Shall be carried out according to Gulf standard mentioned in item (2.5).

# 6.4 **Determination of Total Solids**

Shall be carried out according to Gulf standard mentioned in item (2.5).

# 6.5 **Detection of Insects and Their Fragments**

Shall be carried out according to Gulf standard mentioned in item (2.7).

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# 6.6 **Determination of Contaminating Elements**

Shall be carried out according to Gulf standard mentioned in item (2.10).

#### 6.7 **Detection of Ethanol**

Shall be carried out according to Gulf standard mentioned in item (2.11).

# 6.8 **Determination of Yeasts and Moulds**

Shall be carried out according to Gulf standard mentioned in item (2.12).

### 7- PACKAGING, TRANSPORTATION AND STORAGE

# 7.1 Packaging

The product shall be packed in clean, hygienic, suitable, sound, moisture proof and well sealed containers that have no effects on product properties according to Gulf standard mentioned in item (2.4).

# 7.2 Transportation

It shall be carried out in such a way as to protect the product from mechanical damage and contamination.

# 7.3 Storage

The product shall be stored under hygienic conditions in well-ventilated stores and at a safe distance from sources of heat, moisture and contamination according to Gulf standard mentioned in item (2.2), (2.3).

#### 8 - LABELLING

without Prejudice to provisions of Gulf standard mentioned in item (2.1).

the following should be declared on the label.

**8.1** Type of plant from which the molasses Extracted (Molasses sugar cane, molasses sugar beet).

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# **REFERENCES**

Foods and Food Production Encyclopedia 1982, U.S.A.

Pearsons Chemical Analysis of Food 8<sup>th</sup> Ed. 1981.

Egyptian Standard No. 989/1970.

Encyclopedia of Food Technology. Johnson, Peterson (1974).